

IN THE CLAIMS:

A complete listing of the claims is set forth below:

1-28. **(Canceled)**

29. **(Previously Presented)** An electronic commerce system, comprising:

a global content directory server coupled with one or more seller databases over a network, the global content directory server providing a plurality of buyer computers access to the one or more seller databases, the global content directory server comprising:

a storage medium stored therein a schema translation tool comprising:

a storage medium stored therein a mapping module configured to:

receive source schema data and target schema data, the source schema data and the target schema data each comprising a taxonomy comprising a hierarchy of classes into which products are categorized, wherein the target schema data comprises a different taxonomy than the taxonomy of the source schema data, at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes; and

associate one or more source classes of the source schema data with one or more target classes of the target schema data; and

a storage medium stored therein an ontology generation module configured to generate a product ontology for each of the target classes based on the product ontologies of the associated source classes.

30. **(Previously Presented)** The system of Claim 29, wherein the mapping module is further configured to:

receive input from at least one of the plurality of buyer computers indicating one or more source classes to be associated with one or more target classes; and

associate the source classes with the target classes in response to the input from a user associated with at least one of the plurality of buyer computers.

31. **(Previously Presented)** The system of Claim 30, wherein the mapping module is further configured to:

generate a graphical representation of the taxonomies of the source schema data and the target schema data, the graphical representation allowing at least one of the plurality of buyer computers to graphically associate classes of the source schema data with classes of the target schema data; and

communicate the graphical representation to at least one of the plurality of buyer computers.

32. **(Previously Presented)** The system of Claim 29, wherein the source classes are leaf classes of the source schema data.

33. **(Previously Presented)** The system of Claim 29, wherein the ontology generation module is further configured to generate a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.

34. **(Previously Presented)** The system of Claim 29, wherein the ontology generation module is further configured to generate a product ontology for a parent class of a plurality of target classes by determining the intersection of the product attributes included in the product ontologies of the target classes, the product ontologies of the target classes having been generated by the ontology generation module.

35. **(Previously Presented)** The system of Claim 29, wherein:

at least the source schema data further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product; and

the ontology generation module is further configured to generate a seller ontology for each of the target classes based on the seller ontologies of the associated source classes.

36. **(Previously Presented)** The system of Claim 29, wherein:

one or more pointers identifying the one or more seller databases are associated with at least one source class, the one or more seller databases including product data associated with one or more products categorized in the source class; and

the mapping module is further configured to associate the one or more pointers of the source class with one or more target classes associated with the source class.

37. **(Previously Presented)** A computer-implemented method of translating schema data, comprising:

receiving, by a server, source schema data and target schema data, the source schema data and the target schema data each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, wherein the target schema data comprises a different taxonomy than the taxonomy of the source schema data, at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes;

associating, by the server, one or more source classes of the source schema data with one or more target classes of the target schema data; and

generating, by the server, a product ontology for each of the target classes based on the product ontologies of the associated source classes.

38. **(Previously Presented)** The method of Claim 37, further comprising:

receiving input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes; and

associating the source classes with the target classes in response to the input from at least one of the plurality of buyer computers.

39. **(Previously Presented)** The method of Claim 38, further comprising:

generating a graphical representation of the taxonomies of the source schema data and the target schema data, the graphical representation allowing at least one of the plurality of buyer computers to graphically associate classes of the source schema data with classes of the target schema data; and

communicating the graphical representation to at least one of the plurality of buyer computers.

40. **(Previously Presented)** The method of Claim 37, wherein the source classes are leaf classes of the source schema data.

41. **(Previously Presented)** The method of Claim 37, further comprising generating a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.

42. **(Previously Presented)** The method of Claim 37, further comprising generating a product ontology for a parent class of a plurality of target classes by determining the intersection of the product attributes included in the product ontologies of the target classes.

43. **(Previously Presented)** The method of Claim 37, wherein:

at least the source schema data further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product; and

the method further comprises generating a seller ontology for each of the target classes based on the seller ontologies of the associated source classes.

44. **(Previously Presented)** The method of Claim 37, wherein:

one or more pointers identifying the one or more seller databases are associated with at least one source class, the one or more seller databases including product data associated with one or more products categorized in the source class; and

the method further comprises associating the pointers of the source class with one or more target classes associated with the source class.

45. **(Previously Presented)** A computer-readable medium embodied with software for translating between schemas, the software when executed using one or more computers is configured to:

receive source schema data and target schema data, the source schema data and the target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, wherein the target schema data comprises a different taxonomy than the taxonomy of the source schema data, at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes;

associate one or more source classes of the source schema data with one or more target classes of the target schema data; and

generate a product ontology for each of the target classes based on the product ontologies of the associated source classes.

46. **(Previously Presented)** The computer-readable medium of Claim 45, wherein the software is further configured to:

receive input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes; and

associate the source classes with the target classes in response to the input from at least one of the plurality of buyer computers.

47. **(Previously Presented)** The computer-readable medium of Claim 46, wherein the software is further configured to:

generate a graphical representation of the taxonomies of the source schema data and the target schema data, the graphical representation allowing at least one of the plurality of buyer computers to graphically associate classes of the source schema data with classes of the target schema data; and

communicate the graphical representation to at least one of the plurality of buyer computers.

48. **(Previously Presented)** The computer-readable medium of Claim 45, wherein the source classes are leaf classes of the source schema data.

49. **(Previously Presented)** The computer-readable medium of Claim 45, wherein the software is further configured to generate a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.

50. **(Previously Presented)** The computer-readable medium of Claim 45, wherein the software is further configured to generate a product ontology for a parent class of a plurality of target classes by determining the intersection of the product attributes included in the product ontologies of the target classes.

51. **(Previously Presented)** The computer-readable medium of Claim 45, wherein:

at least the source schema data further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product; and

the software is further configured to generate a seller ontology for each of the target classes based on the seller ontologies of the associated source classes.

52. **(Previously Presented)** The computer-readable medium of Claim 45, wherein:

- one or more pointers identifying one or more seller databases are associated with at least one source class, the seller databases including product data associated with one or more products categorized in the source class; and
- the software is further configured to associate the pointers of the source class with one or more target classes associated with the source class.

53. **(Canceled)**

54. **(Previously Presented)** A electronic commerce system, comprising:

a global content directory server coupled with one or more seller databases over a network, the global content directory server providing a plurality of buyer computers access to the one or more seller databases, the global content directory server comprising:

a storage medium stored therein a schema translation tool comprising:

a storage medium stored therein a mapping module configured to:

receive source schema data and target schema data, the source schema data and the target schema data each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, wherein the target schema data comprises a different taxonomy than the taxonomy of the source schema data, at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes, at least the source schema data further comprising one or more pointers identifying one or more seller databases and associated with one or more classes, the one or more seller databases including product data associated with one or more products categorized in the classes;

generate a graphical representation of the taxonomies of the source schema data and target schema data, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema data with classes of the target schema data;

communicate the graphical representation to at least one of the plurality of buyer computers;

receive input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema data to be associated with one or more target classes of the target schema data;

associate one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers; and

associate the pointers of the source classes with one or more target classes associated with the source class; and

a storage medium stored therein an ontology generation module configured to generate a product ontology for each of the target classes based on the intersection of the product attributes included in the product ontologies of the associated source classes.

55. **(Previously Presented)** A method for translating between schemas, comprising:

receiving, by a server, source schema data and target schema data, the source schema data and the target schema data each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes, at least the source schema data further comprising one or more pointers identifying one or more seller databases and associated with one or more classes, the one or more seller databases including product data associated with one or more products categorized in the classes;

generating, by the server, a graphical representation of the taxonomies of the source schema data and the target schema data, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema data with classes of the target schema data;

communicating, by the server, the graphical representation to at least one of the plurality of buyer computers;

receiving, by the server, input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema data to be associated with one or more target classes of the target schema data;

associating, by the server, one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers;

associating, by the server, the pointers of the source classes with one or more target classes associated with the source class; and

generating, by the server, a product ontology for each of the target classes based on the intersection of the product attributes included in the product ontologies of the associated source classes.

56. **(Previously Presented)** A computer-readable medium embodied with software for translating between schemas, the software when executed using one or more computers is configured to:

receive source schema data and target schema data, the source schema data and the target schema data each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized, at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes, at least the source schema data further comprising one or more pointers identifying one or more seller databases and associated with one or more classes, the one or more seller databases including product data associated with one or more products categorized in the classes;

generate a graphical representation of the taxonomies of the source schema data and the target schema data, the graphical representation allowing at least one of a plurality of buyer computers to graphically associate the classes of the source schema data with classes of the target schema data;

communicate the graphical representation to at least one of the plurality of buyer computers;

receive input from at least one of the plurality of buyer computers indicating one or more source classes of the source schema data to be associated with one or more target classes of the target schema data;

associate one or more source classes with one or more target classes in response to the input from at least one of the plurality of buyer computers;

associate the pointers of the source classes with one or more target classes associated with the source class; and

generate a product ontology for each of the target classes based on the intersection of the product attributes included in the product ontologies of the associated source classes.